

# **Financing DER/ CHP Projects**

## **An Overview**

**FEMP DER/ CHP Workshop**

**October 24, 2002**

**Boston, MA**



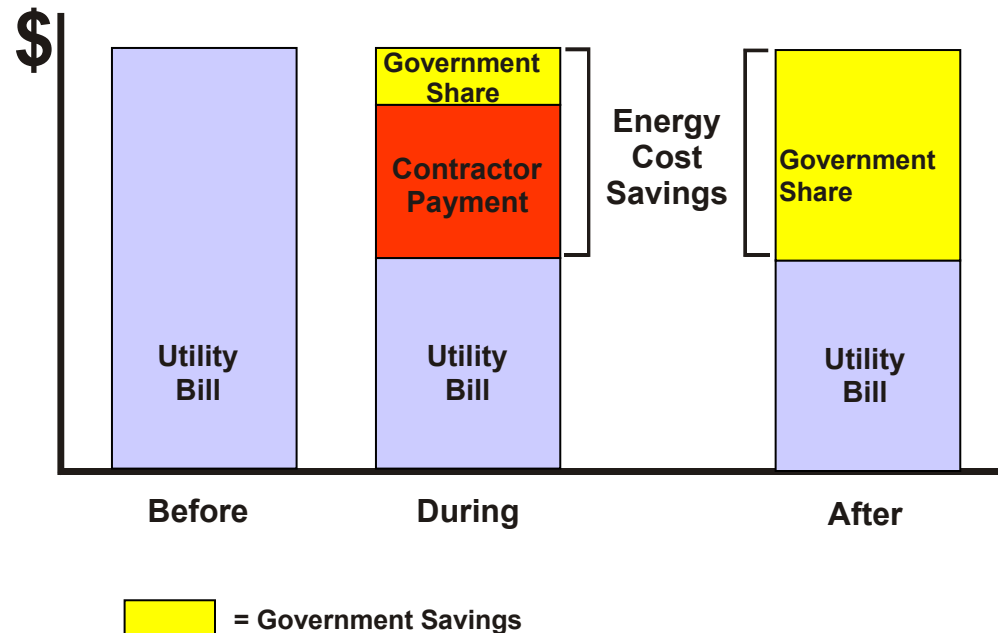
# Project Financing

- ESPC and Super ESPC
- Utility Partnerships
- Agency Appropriations



# Performance Contracting: A Key Tool

- Maximize use of alternative financing
  - Energy Savings Performance Contracts (ESPCs)
  - Utility financing
- No upfront costs other than technical and contracting support
- Agencies pay back investment through energy savings
- ~\$9B in contracting authority now available



# Energy Savings Performance Contracts

Energy Savings Performance Contracting (ESPC) is a contracting method whereby the contractor incurs the cost of implementing energy savings measures and is paid from a share of any energy and energy-related savings directly resulting from implementation of such measures during the term of the contract.

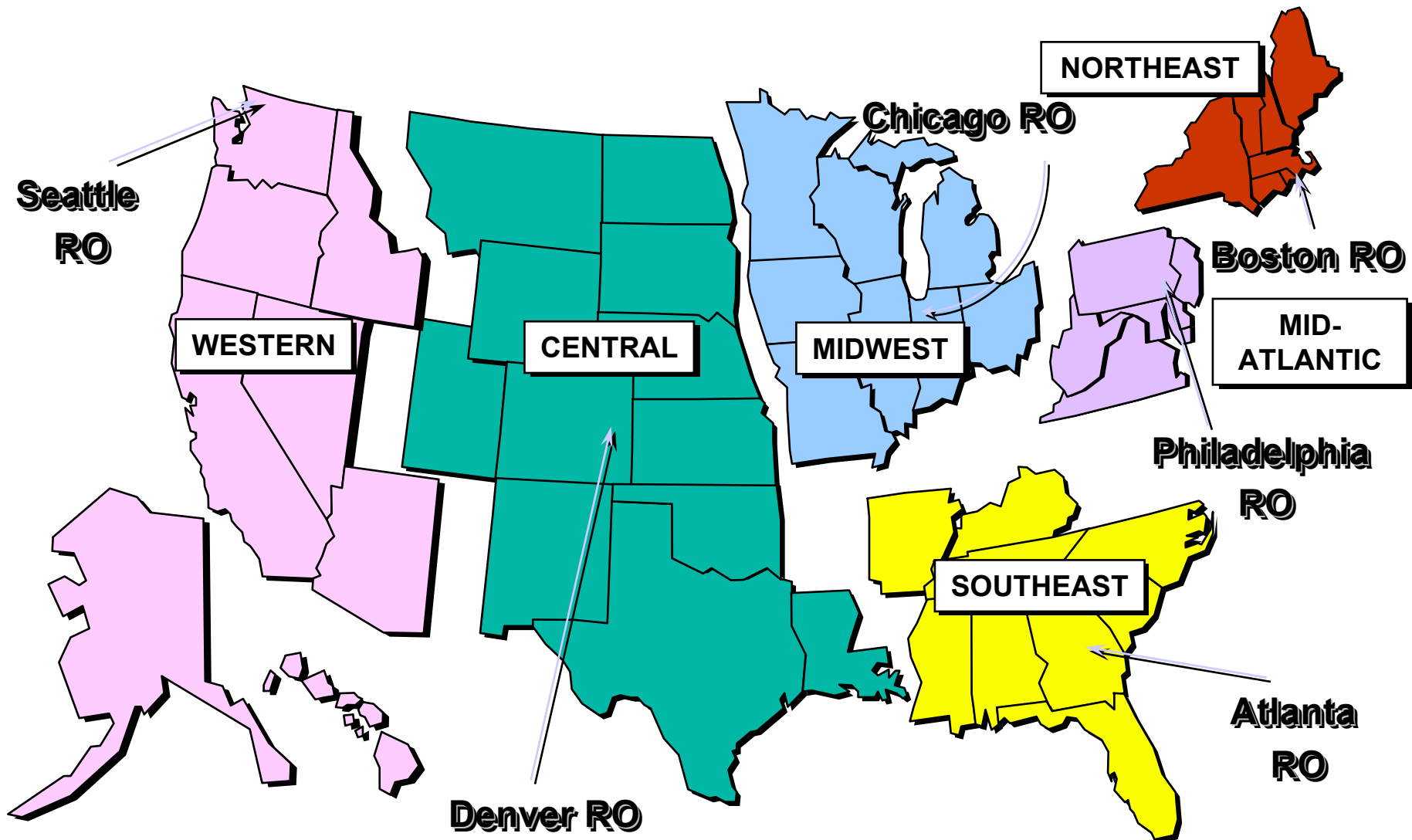
# FEMP Super ESPC

- Covers all Federal facilities in a geographic region
- Standardizes general terms and conditions
- Multiple award IDIQs to cadre of ESCOs
- Projects executed by agency Delivery Orders issued against the IDIQ
- Allows for revision of IDIQ terms by agency in Delivery Orders

# The Two Types of Super ESPC

- Regional (by DOE Region)
- Technology Specific (International)
  - Photovoltaics (PV)
  - Geothermal Heat Pumps (GHP)
  - Parabolic Troughs (Solar Water Heating)
  - Biomass and Methane Fuels (BAMF)

# DOE Super ESPC Regions



# Practical Guide to Savings & Payments

Two types of allowable savings:

- Energy Cost Savings: Recur as a result of decreased usage/cost either from renewable energy sources, decreased peak demand or correcting a power factor.
- Energy-Related Cost Savings: Reduction in expenses *related* to energy consuming equipment. Either one-time (avoided expenditures of O&M funds) or recurring (reduced O&M).



# Benefits of ESPC Contracting

- Experienced ESCO contractors
- Maintain high degree of control over project
- Integrated approach to project development
- Avoid appropriation delays, ceilings, priorities
- Performance guarantees
- Annual audit report to verify results

# ESPC Example: Lessons Learned

- Site-specific ESPC process can be long and complicated – Super ESPC is much more streamlined
- Partnering with the ESCO resulted in issues being addressed and problems corrected
- ESCO credit rating, M&V approach, and level of risk-sharing affect interest rate and contract term

# Utility Energy Service Contracts (UESC)

Specific contracts that allow utilities to provide agencies with comprehensive energy and water efficiency improvements and demand reduction services. Utilities front the capital costs and are paid out of savings.

# Benefits of Utility Contracting

- Flexibility in project scope and size; smaller projects feasible
- Your utility may have unique expertise and knowledge of your facility
- Non-competitive procurement (due to established source authority) reduces time and resources
- One-stop shopping for a turnkey project
- Relationship with known entity
- Payment through the utility bill
- Pay through energy savings



# Example: UESC at GSA Washington, DC

- \$64 million cogeneration project financed by utility partner – Washington Gas
- Project replaces existing refrigeration equipment & increases plant's capacity to meet chilled water needs; also includes O&M services
- Eliminates need to replace small, aging chiller plants
- Cogeneration technology will improve regional air quality

# UESC Example: Lessons Learned

- Early management buy-in and partnering are essential
- Comprehensive approach is cost-effective & energy efficient
- No need to wait for appropriated dollars
- FEMP can assist in contracting process
- Cogen system eliminates electric bill

# **FEMP Role in ESPC/UESC Project Assistance**

- One-stop shop: Project facilitators, agency technical & procurement assistance for energy and water projects
  - Project facilitation
  - RFP development
  - Technical Proposal review
  - National M&V team
  - Contracting expertise
- Reimbursable assistance available through Inter-Agency Agreement

# State Programs

- Many states offer SBC and/ or renewable energy programs to support DER/ CHP
- For Example
  - MA
  - NY
  - RI
  - CT

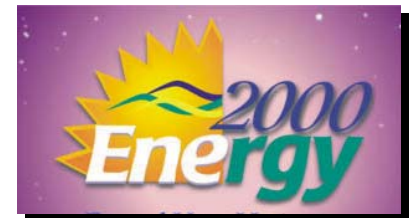
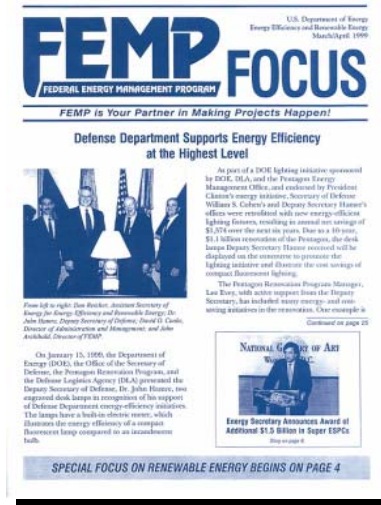


# Upcoming Training

- ESPC Workshop
  - November 5-6, 2002
  - New Orleans, LA
- Federal Utility Partnership Working Group
  - November 19-20, 2002
  - Tampa, FL
- Utility Energy Service Contracts
  - May 28-29, 2003
  - Brooklyn, NY

# FEMP Resources

- **FEMP Web Site:** [www.eren.doe.gov/femp](http://www.eren.doe.gov/femp)
- **FEMP Help Desk:** 800-363-3732
- ***FEMP Focus* Newsletter**
- **DOE Regional Office FEMP Team**
- **FEMP HQ Office**
- **DOE National Laboratory Liaisons**
  - NREL, ORNL, LBNL, PNNL, NETL
- **“Energy 2003” – Real World-Real Solutions**
  - August 17-20, Orlando, Florida
  - [www.energy.2003.ee.doe.gov/](http://www.energy.2003.ee.doe.gov/)



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